

## On a skull of *Tursiops aduncus* (Ehrenberg, 1833) (Cetacea, Delphinidae) found at Mossel Bay, South Africa, in 1904

by

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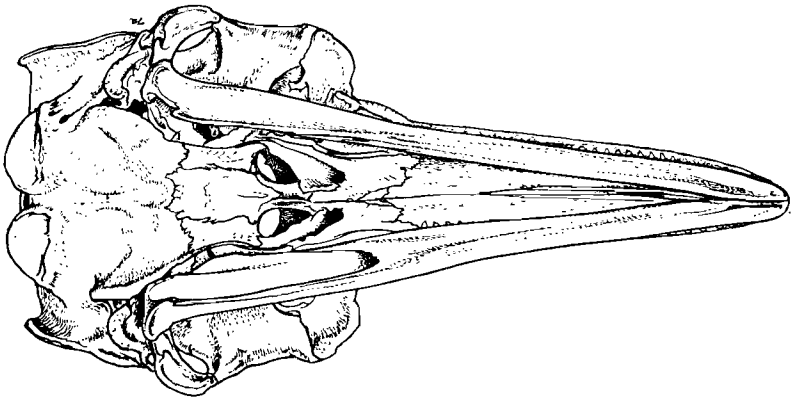
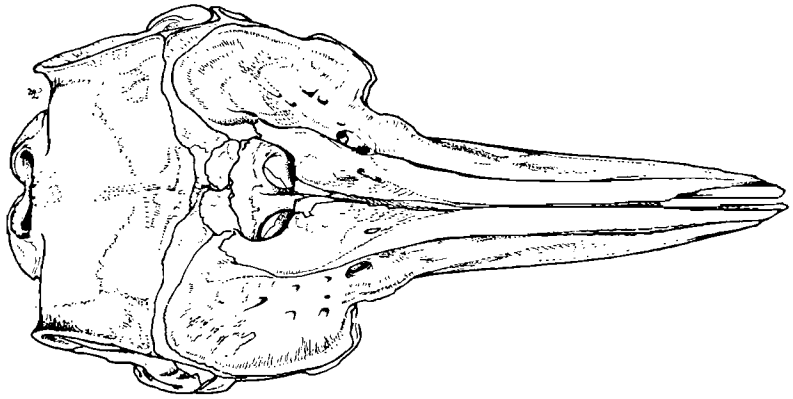
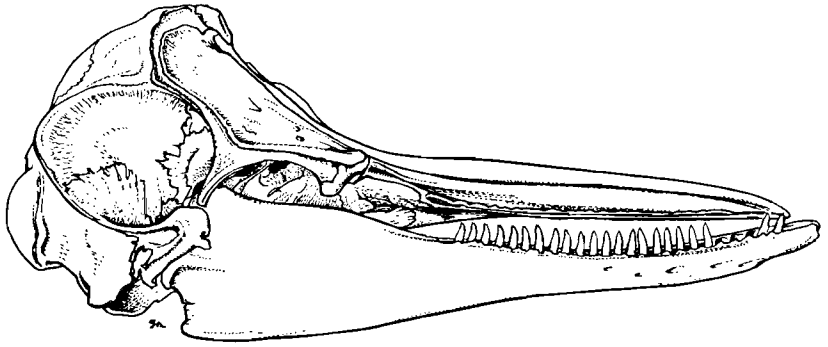
During his stay in South Africa in 1904, the late Prof. Max Weber obtained a skull of a dolphin from Mossel Bay. This skull he identified as belonging to *Steno rostratus* (Desmarest, 1817) [preoccupied; now *Steno bredanensis* (Lesson, 1828)]. Under the first name this skull with its locality was mentioned by Weber (1923, p. 7) in his paper on the Cetacea collected during the Siboga Expedition.

During a recent reorganization of the whale collection of the Zoological Museum in Amsterdam, the Netherlands, the above mentioned skull was again checked and registered. When this was done it became clear that Prof. Weber had made a mistake in his identification and that the statement of Barnard (1954), that *Steno bredanensis* up to that time had never been found on the coasts of South Africa proper, remained correct. After comparing the features and the dimensions of the skull with data published and with skulls from the Indo-Australian region, it became evident that the skull belonged to *Tursiops aduncus* (Ehrenberg, 1833) [syn. *Tursiops catalania* (Gray, 1862)].

In view of the fact that only a few specimens of this species are known from South Africa [5 animals from the Natal coasts (True, 1914) and one specimen from Noordhoek near Cape Town (Barnard in Ellerman, Morrison-Scott & Hayman, 1953)], the author of this note thought it useful to publish the result of the re-identification as well as to give some measurements of the skull and three drawings of it made by Mr. Jos. Ruting.

At the same time some measurements are included of two calvaria of the same species from the Indo-Australian Archipelago (Weber, loc. cit.). The remaining two skulls mentioned by Weber, one from the village Lamakera on the island of Solor (ZMA 7963)—leg. Siboga Expedition 1899-1900, the other from Siski near Sorong, New Guinea (ZMA 7967)—leg. L. A. de Bruyne, date unknown, are too damaged to give reliable dimensions.

For detailed descriptions of the skull of *Tursiops aduncus* I refer to the authors mentioned under the synonymy of this species in Ellerman & Morrison-Scott (1951, p. 736) as well as to True (1889 & 1914). The calvarium of the Mossel Bay specimen (ZMA 7676), of which the sex is unknown, is rather beach-worn. The pterygoid bones are almost completely broken off but two small remains indicate, however, that they are just separate from each other. The number of teeth in the lower jaw is 27-28 (diameter 5.5 mm). The maximum length of the mandible is 380 mm., its height at the coronoid being 84 mm. In view of the advanced state of the ossification of the sutures (which are accentuated for clarity in the drawings), it is evident that the skull belongs to a mature animal.



Although all the Bottlenose Dolphins of the Indian Ocean and adjacent waters are now classified under one species, *Tursiops aduncus*, after reading the description of the external features of freshly found specimens and hearing the reports on sightings of these animals by skilled observers at sea one gets the impression that in the area mentioned more than one local form exists. Whether these differences in colour and pattern are more or less constant is not yet known; the possibility, however, of the occurrence of different sub-species should not be excluded.

	Measurements in mm.			In % total length		
Reg. nr. ZMA. . . . .	7676	7964	7065	7676	7964	7965
Total length of skull . . . . .	451	421	489	100	100	100
Rostrum length . . . . .	248	232	272	54·9	55·1	55·6
Rostrum basal width . . . . .	104	104	132	23·0	24·7	26·9
Rostrum, width 60 mm. anterior to base . . . . .	71	75	101	15·7	17·8	20·6
Width across pre-orbital angles of supra-orbital processes . . . . .	191	186	220	42·3	44·1	44·9
Width across post-orbital angles of supra-orbital processes . . . . .	217	208	251	48·1	49·4	51·3
Zygomatic width . . . . .	218	208	252	48·3	49·4	51·5
Width of braincase across parietals . . . . .	168	150	182	37·2	35·6	37·2
Maximum width of premaxillae . . . . .	83	72	88	18·4	17·1	17·9
Length of upper tooth row (right side) . . . . .	207	191	238	45·8	45·3	48·6
Length of upper tooth row (left side) . . . . .	208	193	243	46·1	45·8	49·6
Length temporal fossa . . . . .	103	93	100	22·8	22·0	20·4
Height temporal fossa . . . . .	78	75	77	17·2	17·8	15·7
Number of alveoli . . . . .	cf 26-26	24-23	23-22			

Dimensions of calvaria of *Tursiops aduncus*. ZMA 7676 = Mossel Bay, South Africa, 1904; ZMA 7964 = Cheribon, Java, about 1890; ZMA 7965 = Deli, Sumatra, between 1905-1917.

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